Project Name	InfotAiMOS
Online team meeting	https://fau.zoom.us/j/67792730528
Production system (if any)	tba
Test system (if any)	tba
GitHub repository	https://github.com/amosproj/amos2022ws02-automotive-test-app/
GitHub feature board	https://github.com/orgs/amosproj/projects/5
GitHub impediments backlog	https://github.com/orgs/amosproj/projects/6
Team T-shirt (black, male)	https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/eca1c484-76e3-403a-8df9-b080a79b659f
Team T-shirt (black, female)	https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/fb698f2d-07cd-4e63-9301-62e7e0d35a1b
Additional materials	

Last Name	First Name	GitHub User Name	Email Address
Rehm	Ronja	ronjarehm	ronja.rehm@fau.de
Schreiner	Stefanie	stefanieschreiner	stefanie.schreiner@fau.de
Wüllner	Corinna	i315315	corinna.wuellner@fau.de
Güder	Emre	EmreR7	emre.gueder@fau.de
Hausding	Anders	andy3189	a.hausding@campus.tu-berlin.de
Lang	Daniel	Da-Lang-CS	daniel.l.lang@fau.de
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Schmid	Tobias	tobischmd	tobias.schmid@fau.de
Sulzbach	Lara	LaraSlzb	lara.sulzbach@fau.de
Tuncay	Berkan Ender	BETuncay	berkan.tuncay@fau.de
		•	

#	Meeting Day Product Owner	Software Developer	Release Manager	Scrum Master	Comment
1	2022-10-19 Corinna Wüllner, Stefanie	Everyone else	N/A	Ronja Rehm	
2	2022-10-26 Corinna Wüllner, Stefanie	Everyone else	Anders	Ronja Rehm	
3	2022-11-02 Corinna Wüllner, Stefanie	Everyone else	Berkan	Ronja Rehm	
4	2022-11-09 Corinna Wüllner, Stefanie	Everyone else	Daniel	Ronja Rehm	
5	2022-11-16 Corinna Wüllner, Stefanie	Everyone else	Emre	Ronja Rehm	
6	2022-11-23 Corinna Wüllner, Stefanie	Everyone else	Hanna	Ronja Rehm	
7	2022-11-30 Corinna Wüllner, Stefanie	Everyone else	Lara	Ronja Rehm	Mid-term due
8	2022-12-07 Corinna Wüllner, Stefanie	Everyone else	Tobias	Ronja Rehm	
9	2022-12-14 Corinna Wüllner, Stefanie	Everyone else	Anders	Ronja Rehm	
10	2023-01-11 Corinna Wüllner, Stefanie	Everyone else	Berkan	Ronja Rehm	
11	2023-01-18 Corinna Wüllner, Stefanie	Everyone else	Daniel	Ronja Rehm	
12	2023-01-25 Corinna Wüllner, Stefanie	Everyone else	Emre	Ronja Rehm	
13	2023-02-01 Corinna Wüllner, Stefanie	Everyone else	Hanna	Ronja Rehm	
14	2023-02-08 Corinna Wüllner, Stefanie	Everyone else	Lara	Ronja Rehm	Demo day!
15	2023-02-15 Corinna Wüllner, Stefanie	Everyone else	Tobias	Ronja Rehm	Retrospective
		·		•	· ·

Goals	Have a working and visually pleasing app; good team work; good grades; continuous work throughout the semester
Meeting norms	Be punctual; active contribution; respectful environment
Working norms	Do the work you're assigned to do, in the agreed time frame; in case of questions/struggles ask for help; set realistic goals; work
Coordination norms	If you cannot attend a meeting, please inform the team asap and give information on work in text-form
Communication norms	Open/honest/constructive communication; decisions should be made in consensus; if questions arise, take time to answer themm
Consideration norms	In case of issues: have open communication about it, resolve issues in a respectful way; for assistance contact Scrum Master
Cont. improvement norms	Learn from mistakes; give positive/negative feedback to team mates; exchange knowledge
Rewards	Give compliments for a job well done; have a virtual beer together
Sanctions	If at least 5mins too late to a meeting: sing a christmas carol

## **Product Vision Project Mission**

The importance of infotainment systems in cars is increasing and users expect more and more connectivity in the car (Handelsblatt, 2005). At the same time, different car manufacturers use different infotainment systems, each customized systems immediately or with a time delay. It particularly focuses on the simulation to the specific needs of the respective manufacturers. With InfotAiMOS, our goal of these use cases in the context of navigation, steering wheel knobs, media is to create an OpenSource Android Automotive test app, which can be used by play, power management and vehicle properties. This app should therefore, various software developers of infotainment systems to help them with the development of other apps and thus, make their work easier.

The mission of this project is to develop a functioning Android Automotive test app, that can help to test and simulate different use cases of infotainment provide the developers with a test system in which apps can be tested in a safe environment.

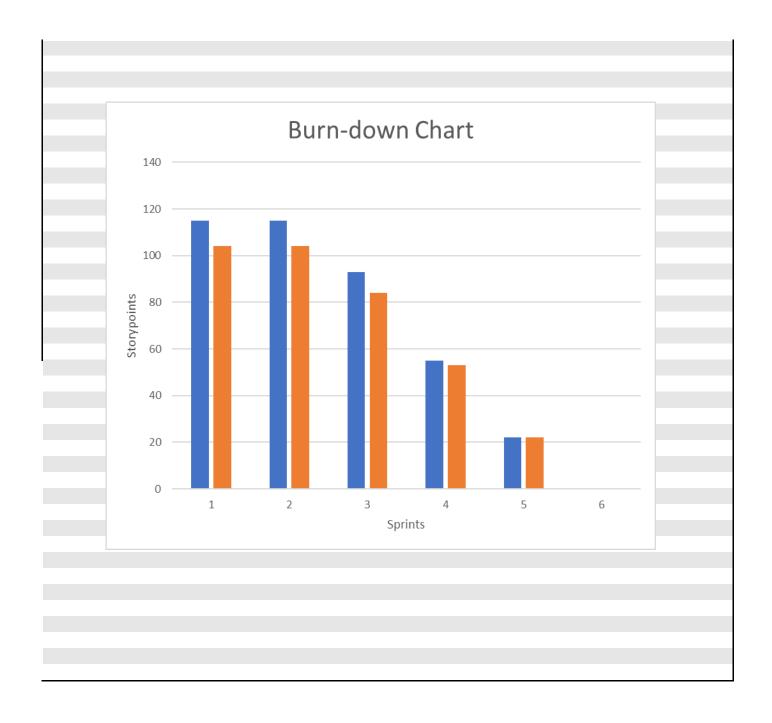
Term	Definition

Sprint	Theme Goal	Feature Name	Est. Size	Est.	Real Size	Real Remaining
Releas	ie .					
	Total		115	0	104	0
	Total		113	U	104	U
Sprints	\$					
				nated burn-d	own	Real burn-down
1	Initial organizati		0	115	0	104
2	Familarization w		0	115	0	104
3		of Navigation Context Area	22	93	20	84
4		f Navigation & Steering Wheel	38	55	31	53
5		f additional Areas	33	22	31	22
6	Implementation	of Vehicle Properties Use Cases	22	0	22	0
_						
Feature	es					
1	Initial organiza Set up	development environment and tea #30 Set up development #31 Set up SD kickoff-meeting	am structures	3		
2	Familarization	with project				
		rize with programming environmer				
		#9 Familiarize with Android Automotive				
		#10 Familiarize with test driven development				
		#11 Familiarize with Android development				
		#12 Familiarize with Kotlin				
		#27 Fill Bill of Materials				
		#28 Come up with Software Architecture				
		#29 Create an App				
3	Implementation	n of Navigation Context Area				
J	implementation	i oi wavigation context Area				

	Create	area for navigation use cases		
		#15 Design GUI for starting	0	0
		page	3	3
		#18 Implement GUI for use		
		cases in navigation context area	3	3
		#5 Design GUI for use cases in		_
		navigation context area	3	3
		#16 Implement functionality to		_
		enter navigation use case area	3	2
		#8 Simulate starting a navigation	5	5
		#14 Simulate ending a	5	J
		navigation	3	2
		#17 Implement back button to		
		previous page	2	2
		p.ooue page	_	_
4	Davidonment a		_	_
4	-	of Navigation and Steering Wheel Area		
4	-	of Navigation and Steering Wheel Area development of navigation area and imple		
4	-	of Navigation and Steering Wheel Area		
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the	ementation of steering wh	neel area
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application	ementation of steering wh	neel area
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of	ementation of steering wh	neel area
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation	ementation of steering when 2	neel area 2 3
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button	ementation of steering wh	neel area
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button #39 Design GUI for showing	ementation of steering when 2	neel area 2 3
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button	ementation of steering when 2	neel area 2 3
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button #39 Design GUI for showing name and descriptions of	ementation of steering when 2 2 3	neel area 2 3
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button #39 Design GUI for showing name and descriptions of steering wheel buttons	ementation of steering when 2 2 3	neel area 2 3
4	-	of Navigation and Steering Wheel Area development of navigation area and imple #61 Add an icon for the application #42 Design GUI for media play area #41 Implement functionality of clicking on activeNavigation Button #39 Design GUI for showing name and descriptions of steering wheel buttons #38 Implement click dummy to	ementation of steering where 2 2 3	neel area 2 3 2

		#35 Implement functionality of pressing a steering wheel button: voicecontrol	5	2
		#34 Implement functionality of pressing a steering wheel button: play/pause	5	2
		#33 Implement functionality of pressing a steering wheel button: skipForward	3	2
		#20 Implement functionality to enter steering wheel use case area	2	2
		#19 Design GUI for steering wheel area on starting page	3	2
		#13 Show that navigation is currently active	3	5
_	<b>5</b>			
5		of additional areas	hiala muamantiaa amal mass	
	ruitilei	development of steering wheel, ve	micie propenies and pow	er management area
		#55 Implement tests for the starting page	3	2
		#57 Implement tests for the	J	<b>L</b>
		navigation area	3	3
		<u> </u>		
		#21 Implement GUI for steering		
		wheel in Android Studio	5	5
		#40 Implement functionality to show name and description	2	2
		when clicking on a button	3	3
		#66 Implement toggle button to switch between functionality and description wheel	3	3
		#25 Design GUI for vehicle properties area on starting		
		page	5	5

#7 Implement GUI for use cases in the vehicle properties context area	2	2
#26 Implement functionality to enter vehicle properties use case area	2	2
#22 Design GUI for power management area on starting page	2	2
#24 Implement GUI for use cases in the power management context area	3	2
#23 Implement functionality to enter power management use case area	2	2
n of Vehicle Properties Use Cases & p an Area to test Vehicle Properties	& Refactoring	
#58 Create the Build Process Video	5	5
#72 Implement functionality of pressing a steering wheel button: SeekForward	3	2
#51 Implement functionality to switch between day and night	E	E
mode	5	5
#43 Implement functionality to enter media play use case area	2	2
#92 Design mute button in power management area	2	1
#93 Design delay button in power management area	2	2
#56 Implement tests for the steering wheel knob area	3	5



Sprint	Theme Goal Feature Name	Est. Size	Est.	Real Size	Real Remaining
Releas	e				
	Total	146	0	104	0
Sprints					
		Estin	nated burn-d	own	Real burn-down
1	Initial organizational tasks	0	146	0	104
2	Familarization with project	0	146	0	104
3	Implementation of Navigation Context Area	22	124	20	84
4	Development of Navigation & Steering Wheel	38	86	31	53
5	Development of additional Areas	33	53	31	22
6	Implementation of Vehicle Properties Use Cases	22	31	22	0
7	Implementation of Timer Context Area &	31	0	0	0
8	Implementation of Speech Assistant and	tbd.	tbd.	tbd.	tbd.
9	tbd.	tbd.	tbd.	tbd.	tbd.
10	Christmas Break	n/a	tbd.	n/a	n/a
11	tbd.	tbd.	tbd.	tbd.	tbd.
12	Finalization of App	tbd.	tbd.	tbd.	tbd.
13	Last Adjustments for the Final Project Release	tbd.	tbd.	tbd.	tbd.
14	Creation of Final Project Presentation	tbd.	tbd.	tbd.	tbd.
	·	tbd.	tbd.	tbd.	tbd.
Feature	es				
1	Initial organizational tasks				
	Set up development environment and tea	am structure:	S		
	#30 Set up development				
	branch in Github				
	#31 Set up SD kickoff-meeting				
•	- 11				
2	Familarization with project				
	Familiarize with programming environmen	t			
	#9 Familiarize with Android				
	Automotive				
	#10 Familiarize with test driven				
	development				

		#11 Familiarize with Android		
		development		
		#12 Familiarize with Kotlin		
		#27 Fill Bill of Materials		
		#28 Come up with Software		
		Architecture		
		#29 Create an App		
•				
3	-	n of Navigation Context Area		
	Create	area for navigation use cases		
		#15 Design GUI for starting	^	0
		page	3	3
		#18 Implement GUI for use		
		cases in navigation context		
		area	3	3
		#5 Design GUI for use cases in		
		navigation context area	3	3
		#16 Implement functionality to		
		enter navigation use case area	3	2
		#8 Simulate starting a		
		navigation	5	5
		#14 Simulate ending a		
		navigation	3	2
		#17 Implement back button to		
		previous page	2	2
	<b>D</b>	5N 104		
4		f Navigation and Steering Wheel Area	montation of stooring wh	ool area
	ruiller	development of navigation area and imple	mentation of steering wh	eei alea
		#61 Add an icon for the	2	0
		application	2	2
		#42 Design GUI for media play	0	
		area	2	3

	#41 Implement functionality of clicking on activeNavigation		
	Button	3	2
	#39 Design GUI for showing name and descriptions of steering wheel buttons	3	2
		3	2
	#38 Implement click dummy to implement button functionality	2	2
	#37 Design GUI for steering wheel	5	5
	#35 Implement functionality of pressing a steering wheel button: voicecontrol	5	2
	#34 Implement functionality of pressing a steering wheel		
	button: play/pause	5	2
	#33 Implement functionality of pressing a steering wheel button: skipForward	3	2
	#20 Implement functionality to enter steering wheel use case area	2	2
	#19 Design GUI for steering	_	_
	wheel area on starting page	3	2
	#13 Show that navigation is	J	
	currently active	3	5
	canona, aonto		, and the second
5 Development of	of additional areas		
· · · · · · · · · · · · · · · · · · ·	development of steering wheel, vehicle	properties and p	oower management area
	#55 Implement tests for the		<del>-</del>
	starting page	3	2
	#57 Implement tests for the		
	navigation area	3	3

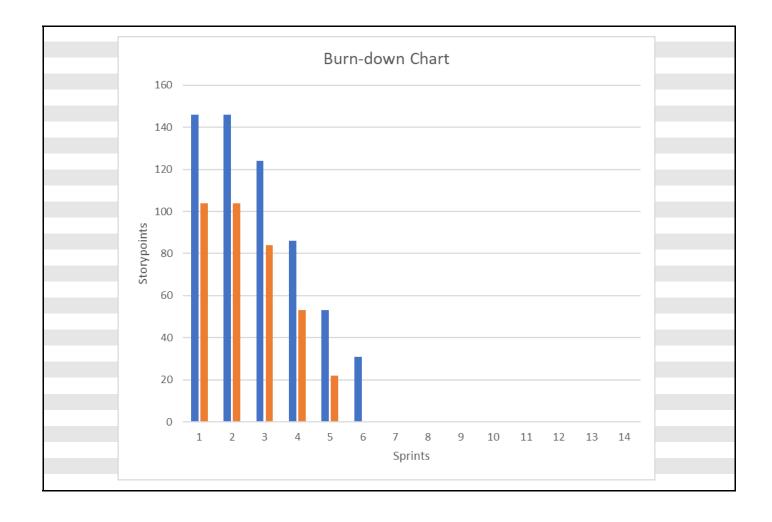
	#21 Implement GUI for steerin wheel in Android Studio	ng 5 5	
	#40 Implement functionality to show name and description when clicking on a button	3 3	
	#66 Implement toggle button to switch between functionality and description wheel	to 3 3	
	#25 Design GUI for vehicle properties area on starting page	5 5	
	#7 Implement GUI for use cases in the vehicle properties context area	s 2 2	
	#26 Implement functionality to enter vehicle properties use case area	2 2	
	#22 Design GUI for power management area on starting page	2 2	
	#24 Implement GUI for use cases in the power management context area	3 2	
	#23 Implement functionality to enter power management use case area	)	
	2000 2000		
6 I	mplementation of Vehicle Properties Use C	ases & Refactoring	
	Develop an Area to test Vehicle Prope	erties	
	#58 Create the Build Process Video	5 5	
	#72 Implement functionality of pressing a steering wheel		
	button: SeekForward	3 2	

	#51 Implement functionality to		
	switch between day and night	_	_
	mode	5	5
	#43 Implement functionality to		
	enter media play use case area	2	2
	#92 Design mute button in		
	power management area	2	1
	#93 Design delay button in		
	power management area	2	2
	#56 Implement tests for the		
	steering wheel knob area	3	5
-	n of Timer Context & Speech Assistant A		
Develo	p an Area for the timer context and the Sp	eech Assistant	
	#100 Simulate speech		
	announcement in navigation		
	context area	5	tbd.
	#113 Design GUI for App		
	Settings area on starting page	2	tbd.
	#114 Implement functionality to		
	enter App Settings context are	1	tbd.
	#123 Implement GUI for use		
	cases in App Settings Context		
	area	2	tbd.
	#115 Move functionality for		
	switch between day/night mode		
	to App Settings context	2	tbd.
	#101 Design GUI for timer area		
	on starting page	2	tbd.
	#102 Implement functionality to		
	enter timer use case area	1	tbd.
	#117 Implement GUI for list in	•	
	timer area	5	tbd.
	unor area		

		#105 Design GUI for speech			
		assistant area on starting page		2	tbd.
		#106 Implement functionality to			
		enter speech assistant use			
		case area		1	tbd.
		#124 Implement GUI for use			
		cases in Speech Assistant			
		context area		1	tbd.
		#104 Implement functionality for timer in timer context area		5	tbd.
		#103 Design Delay button in		O .	ibu.
		speech assistant area		2	tbd.
8	Implementation	n of Speech Assistant and Vehic	cle Prope	rties Use Cases	
	Develop	o use cases in speech assistant a	and vehicle	e properties area	
		#54 Implement functionality to			
		set the system in stand-by			
		mode	tbd.		tbd.
		#107 Implement functionality of			
		PTT speech assistant	tbd.		tbd.
		#108 Implement functionality of	tbd.		tbd.
		TTT speech assistant	ιbα.		iba.
		#109 Implement functionality to switch between left-hand drive			
		and right-hand drive	tbd.		tbd.
					5.
		#111 Implement functionality to			
		switch between day and night			
		mode in the whole system	tbd.		tbd.
		#116 Refactor GUI of starting			
		page	tbd.		tbd.
		#110 Design tile to show			
		vehicle identifier number in			
		vehicle properties area	tbd.		tbd.

			#112 Design tile to show		
			battery level in vehicle		
			properties area	tbd.	tbd.
9	tbd.				
			TBD: issues in this sprint, since		
			we only get requirements from		
			the industry partner week by		
		tbd.	week	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
10	Christm	as Brea	nk		
		n/a			
11	tbd.				
11	wu.				
			TBD: issues in this sprint, since		
			we only get requirements from		
		411	the industry partner week by	4. 4	41-4
		tbd.	week	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
			tbd.	tbd.	tbd.
40	Finally :	4:	A		
12	Finaliza	tion of A	чрр		

tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by week tbd. tbd. tbd. tbd. tbd.	tbd. tbd. tbd. tbd. tbd. tbd. tbd.	tbd. tbd. tbd. tbd. tbd. tbd.
13 Last Adjustm	ents for the Final Project Releas	€	
tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by week		tbd.
	tbd.	tbd.	tbd.
14 Creation of F	inal Project Presentation		
tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by	thd	tbd.
lba.	week tbd.	∫tbd. tbd.	tbd.
	tbd.	tbd.	tbd.



#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
	- Code compiles and builds	- DoD of each feature in the sprint release is met	- Everything from the Sprint release is fullfilled
	- Acceptance criteria are met	- No known severe bugs open	- All implemented features must be fully working
	- Feature tests have been written and were passed	- Feature test coverage at/above 80%	- Documentation is available
	- Code is peer-reviewed	- Feature is merged into the main branch	- APK is available
	- Feature is merged into development branch	- Implemented Issues are closed	
	- Documentation is updated	- Feature board is updated	
	- Bill of Materials is updated	- Sprint Release Candidate is properly tagged	

Туре	Link / reference
user documentation	https://github.com/amosproj/amos2022ws02-automotive-test-app/wiki/User-documentation
build documentation	https://github.com/amosproj/amos2022ws02-automotive-test-app/wiki/Build-Documentation

#	Context	Name	Version	License	Comment
1	junit	junit	4.13.2	Eclipse Public	https://github.com/junit-team/junit4
2	androidx.core	core-ktx	1.9.0	Apache 2.0	https://github.com/androidx/androidx
3	androidx.appcompat	appcompat	1.5.1	Apache 2.0	
4	androidx.test.ext	junit	1.1.3	Apache 2.0	
5	androidx.test.espresso	espresso-core	3.4.0	Apache 2.0	
6	androidx.activity	activity-ktx	1.6.1	Apache 2.0	
7	androidx.constraintlayout	constraintlayout	2.1.4	Apache 2.0	
8	androidx.media	media	1.6.0	Apache 2.0	
9	androidx.fragment	fragment-ktx	1.5.4	Apache 2.0	
10	com.google.android.material	material	1.7.0	Apache 2.0	https://github.com/material-components/material-
11	JLLeitschuh	ktlint-gradle	11.0.0	MIT license	https://github.com/JLLeitschuh/ktlint-gradle
12	androidx.lifecycle	lifecycle-*	2.5.1	Apache 2.0	https://github.com/androidx/androidx
13	androidx.navigation	navigation	2.5.3	Apache 2.0	
14	org.hamcrest.Matchers	hamcrest matcher	1,3	BSD-3-Clause	https://github.com/hamcrest/JavaHamcrest

Last Name	First Name	Value			
Rehm	Ronja				
Schreiner	Stefanie		#####	#####	
Wüllner	Corinna				
Güder	Emre				
Hausding	Anders		0	No size	
Lang	Daniel		1	Trivial size	
Müller	Hanna		2	Small size	
Schmid	Tobias		3	Medium size	
Sulzbach	Lara		5	Large size	
Tuncay	Berkan Ender		8	Very large size	
			13	Too large (size)	